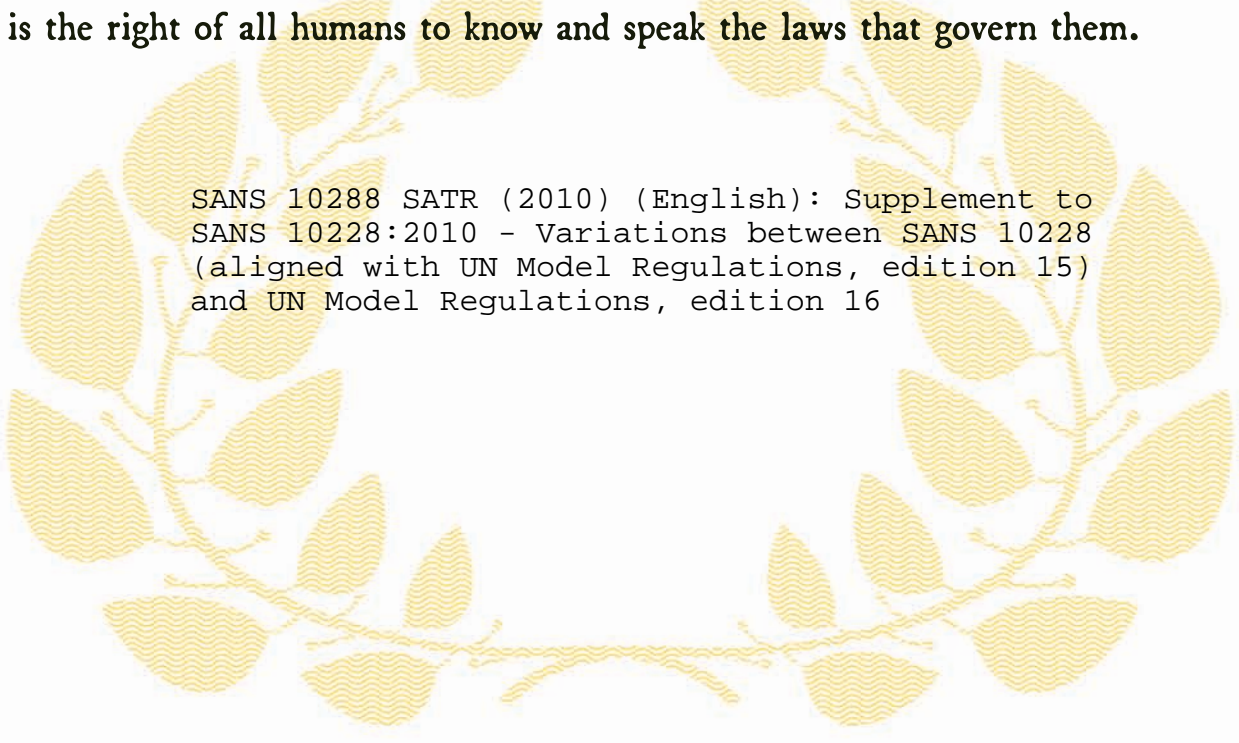




# *Republic of South Africa*

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SANS 10288 SATR (2010) (English): Supplement to  
SANS 10228:2010 - Variations between SANS 10228  
(aligned with UN Model Regulations, edition 15)  
and UN Model Regulations, edition 16



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**SATR 10228:2010**

Edition 1

## **SABS STANDARDS DIVISION**

Technical report

### **Supplement to **SANS 10228:2010** — Variations between SANS 10228 (aligned with UN Model Regulations, edition 15) and UN Model Regulations, edition 16**

Can only be used in conjunction with [SANS 10228:2010](#).

This document does not have the status of a South African National Standard.

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## SATR 10228:2010

Edition 1

### Table of changes

Change No.	Date	Scope

## Foreword

This South African technical report was approved by National Committee SABS SC 1060B, *National committee for standards for dangerous goods including hazardous chemical substances and dangerous goods waste – Classification, operation requirements and information*, in accordance with procedures of the SABS Standards Division, in compliance with annex 3 of the WTO/TBT agreement.

This SATR was published in November 2010.

## Introduction

This technical report is intended as a supplement to [SANS 10228:2010](#). It is published primarily for the benefit of the chemical industry in South Africa, and more specifically for those industry members who are exporting or shipping dangerous goods by sea. It is presented in the form of a list, highlighting specific clauses that contain variations between the 2010 edition of SANS 10228 and the 16<sup>th</sup> revised edition of the *Recommendations on the transport of dangerous goods, Model Regulations*.

The report will have a limited lifespan, it is only valid until the publication of the next edition of SANS 10228 is published.

NOTE For detailed changes to the 15<sup>th</sup> edition of the *Recommendations on the transport of dangerous goods, Model Regulations*, see document ST/SG/AC.10/36/Add.1 on the UN website, [www.unece.org/trans](http://www.unece.org/trans). The 16<sup>th</sup> edition can be accessed in full on the same website.

## **Supplement to [SANS 10228:2010](#) — Variations between SANS 10228 (aligned with UN Model Regulations, edition 15) and UN Model Regulations, edition 16**

### **Abbreviations**

For the purposes of this document the following abbreviations apply.

- |                              |                                                                                                                 |
|------------------------------|-----------------------------------------------------------------------------------------------------------------|
| <b>CIE</b>                   | – Chief Inspector of Explosives.                                                                                |
| <b>GMOs</b>                  | – genetically modified organisms                                                                                |
| <b>GMMOs</b>                 | – genetically modified microorganisms                                                                           |
| <b>N.O.S.</b>                | – not otherwise specified                                                                                       |
| <b>UN 16<sup>th</sup> Ed</b> | – 16 <sup>th</sup> edition of the <i>Recommendations on the Transport of dangerous goods, Model Regulations</i> |

2

**Table 1 — List of variations between SANS 10228 (aligned with UN Model Regulations, edition 15) and UN Model Regulations, edition 16**

1	2	3	4	5	6
Section	SANS 10228:2010		UN Model regulations 16 <sup>th</sup> edition		Variations
	Clause No.	Clause title	Clause No.	Clause title	
Scope	1	Scope	1.1.1	Scope and application	
Normative references	2	Normative references	—	—	—
Definitions and abbreviations	3	Definitions and abbreviations	1.2	Definitions and units of measurements	More definitions and units of measurements included in UN 16 <sup>th</sup> edition
Training	—	—	1.3	Training	<p>Included in UN 16<sup>th</sup> edition</p> <p>Subclause 1.3.1 amended in UN 16<sup>th</sup> edition to read: Persons engaged in the transport of dangerous goods shall receive training in the contents of dangerous goods requirements commensurate with their responsibilities.</p> <p>"Employees shall be trained in accordance with 1.3.2 before assuming responsibilities and shall only perform functions, for which required training has not yet been provided, under the direct supervision of a trained person."</p> <p>Subclause 1.3.2 amended in UN 16<sup>th</sup> edition (see UN document ST/SG/AC.10/36/Add.1)</p> <p>Subclause 1.3.3 amended in UN 16<sup>th</sup> edition (see UN document ST/SG/AC.10/36/Add.1)</p>

**SATR 10228:2010**  
Edition 1

**Table 1** (*continued*)

1	2	3	4	5	6
Section	SANS 10228:2010		UN Model regulations 16 <sup>th</sup> edition		Variations
	Clause No.	Clause title	Clause No.	Clause title	
Security	–	–	1.4	Security	Included in UN 16 <sup>th</sup> edition
	–	–	1.4.1.1	All persons engaged in the transport of dangerous goods shall consider security requirements for the transport of dangerous goods commensurate with their responsibilities	Subclause 1.4.2.4 amended in UN 16 <sup>th</sup> edition
	–	–			Subclause 1.4.3.2.3 amended in UN 16 <sup>th</sup> edition
Classification (general)	5	Classification system, packing group allocation and subsidiary risk	2.0	Introduction	–
			2.02	UN numbers and proper shipping names	Subclause 2.0.1.1 amended – new definition of class 9 in UN 16 <sup>th</sup> edition Details of how UN numbers and proper shipping names are grouped and sorted (not included in SANS 10228) Subclause 2.0.2.2, 2.0.2.5 and 2.0.2.9 amended in UN 16 <sup>th</sup> edition (see UN document ST/SG/AC.10/36/Add.1)
Precedence of hazard classes	21	Precedence of hazards	2.0.3	Precedence of hazard characteristics	Subclause 2.0.3.2 - sentence on radioactive materials added at end in UN 16 <sup>th</sup> edition
Goods of uncertain classification	20	Classification of samples	2.0.4	Transport of samples	–
General provisions	6	Special requirements for certain dangerous goods	1.1	General Provisions	–

4 Table 1 (continued)

1	2	3	4	5	6
Section	SANS 10228:2010		UN Model regulations 16 <sup>th</sup> edition		Variations
	Clause No.	Clause title	Clause No.	Clause title	
List of Dangerous Goods	B.2	Numerical list of dangerous goods  UN 3481 last UN number listed.	3.1.3	Mixtures or solutions A mixture or solution is not subject to these Regulations if the characteristics, properties, form or physical state of the mixture or solution are such that it does not meet the criteria, including human experience criteria, for inclusion in any class.	Subclause 3.1.3 amended in UN 16 <sup>th</sup> edition (see UN document ST/SG/AC.10/36/Add.1)
			3.2	Dangerous goods list  UN 3495 last UN number listed	In UN 16 <sup>th</sup> edition additional new entries and amendments to numerical and alphabetical list (see UN document ST/SG/AC.10/36/Add.1)  In UN 16 <sup>th</sup> edition columns 7(a) and 7(b) titled Limited and excepted quantities. In SANS 10228:2010 columns 7 and 8 titled Limited and excepted quantities
Test Methods	A  9.5	Test methods for the classification of dangerous goods  Test Methods for flammable liquids	–	–	In UN 16 <sup>th</sup> edition: Not included – Refers to UN Manual of Tests and Criteria (latest edition)
			2.3.3	Determination of flash point	In UN 16 <sup>th</sup> edition (2.3.3) alternative methods for determination of flashpoint included
			2.3.4	Determination of initial boiling point	In UN 16 <sup>th</sup> edition (2.3.4) alternative methods for determination of initial boiling point included

**Table 1** (continued)

1	2	3	4	5	6
Section	SANS 10228:2010		UN Model regulations 16 <sup>th</sup> edition		Variations
	Clause No.	Clause title	Clause No.	Clause title	
<b>Classification of explosives</b>	7	Class 1: Explosives	2.1	Class 1: Explosives	Essentially aligned
General provisions/Definitions	7.1.1.1 to 7.1.1.3 (inclusive)	Introductory notes	2.1.1	Definitions and general provisions	<b>Recommend assistance of CIE for detailed comparison</b> Subclause 2.1.1.3(d) added in UN 16 <sup>th</sup> edition – definition for "phlegmatized" (see UN document ST/SG/AC.10/36/Add.1)
Exclusions from class 1	7.1.2.1 Note	Explosive substances and articles excluded from class 1	2.1.1.5	Goods not classified in class 1	<b>Recommend assistance of CIE for detailed comparison</b>
Compatibility groups	7.5.3 7.3	Acceptance criteria Compatibility groups	2.1.3.6 2.1.2	Exclusions from class 1 Compatibility groups	<b>Recommend assistance of CIE for detailed comparison</b> UN 16 <sup>th</sup> edition contains less detail
<b>Classification of gases</b>	8	Class 2: Gases	2.2	Class 2: Gases	–
Aerosol dispensers	8.1.6	Aerosol dispenser	–	–	In UN 16 <sup>th</sup> edition not mentioned
Warning note about gases	8.3	Warning note about gases	–	–	In UN 16 <sup>th</sup> edition not contained
–	–	–	2.2.2.4	Gases of class 2.2 not subject to these Regulations	Included in UN 16 <sup>th</sup> edition  Subclause 2.2.2.4.amended in UN 16 <sup>th</sup> edition (see UN document ST/SG/AC.10/36/Add.1) – Foodstuffs, sports balls, tyres (except for air transport) and light bulbs not subject to these Regulations
Mixture of gases	8.4	Classification of gas mixtures	2.2.3	Mixture of gases	Subclause 2.2.3(d) amended in UN 16 <sup>th</sup> edition (see UN document ST/SG/AC.10/36/Add.1)
<b>Classification of flammable liquids</b>	9	Class 3: Flammable liquids	2.3	Class 3 - Flammable liquids	–

Table 1 (continued)

1	2	3	4	5	6
Section	SANS 10228:2010		UN Model regulations 16 <sup>th</sup> edition		Variations
	Clause No.	Clause title	Clause No.	Clause title	
<b>Classification of flammable solids</b>	10	Class 4: Flammable solids; substances liable to spontaneous combustion; substances that, on contact with water, emit flammable gases	2.4	Class 4: Flammable solids; substances liable to spontaneous combustion; substances which, in contact with water, emit flammable gases	–
Types of self-reactive substances	10.1.2.4	Types of self-reactive substances	Figure. 2.4.1	Flow chart scheme for self-reactive substances	In SANS 10228 description of types only in text – no flow chart
<b>Classification of oxidizing substances</b>	11	Class 5: Oxidizing substances and organic peroxides	2.5	Class 5: – Oxidizing substances and organic peroxides	–
Types of organic peroxides	11.2.3	Types of organic peroxides	Fig. 2.5.1	Flow chart scheme for organic peroxides	In SANS 10228 description of types only in text – no flow chart
	Table 8	Classification and packaging of currently assigned organic peroxides	2.5.3.2.4	List of currently assigned organic peroxides in packages	In UN 16 <sup>th</sup> edition: 3 entries in table amended, and 2 new entries inserted (see UN document ST/SG/AC.10/36/Add.1)
<b>Classification of toxic and infectious substances</b>	12	Class 6: Toxic and infectious substances	2.6	Class 6 - Toxic and infectious substances	–
	12.1.1	General	Note 1 and 2 to 2.6.1	Introductory notes Definitions	SANS 10228 contains more detail
	12.2.5 and 15.1(f)	Genetically modified micro-organisms and genetically modified organisms	2.9.2	Assignment to class 9 – Genetically modified micro-organisms and genetically modified organisms	In UN 16 <sup>th</sup> edition subclause 2.9.2 amended (see UN document ST/SG/AC.10/36/Add.1)

**Table 1** (concluded)

1	2	3	4	5	6
Section	SANS 10228:2010		UN Model regulations 16 <sup>th</sup> edition		Variations
	Clause No.	Clause title	Clause No.	Clause title	
<b>Classification of Radioactive material</b>	13	Class 7: Radioactive material	2.7	Class 7: Radioactive material	UN 16 <sup>th</sup> edition fully meets 2009 edition of TS-R-1 IAEA, and is acceptable to the National Nuclear Regulator
	–	–	1.5	General provisions concerning class 7	In SANS 10228 not included
	13.2	South African legislation	–	–	In UN 16 <sup>th</sup> edition: not included  Current South African legislation shall be complied with while goods are being transported within the country
<b>Classification of corrosive substances</b>	14	Class 8: Corrosives	2.8	Class 8: Corrosive substances	
	14.3	Packing group criteria for corrosive substances	2.8.2	Assignment of packing groups	In UN 16 <sup>th</sup> edition: subclause 2.8.2.4 amended (see UN document ST/SG/AC.10/36/Add.1)
<b>Classification of miscellaneous dangerous substances</b>	15	Class 9: Miscellaneous dangerous substances and articles	2.9	Class 9: Miscellaneous dangerous substances and articles, including environmentally hazardous substances	In UN 16 <sup>th</sup> edition name of class 9 amended to include environmentally hazardous substances
	15.1	General	2.9.2	Assignment to class 9	In UN 16 <sup>th</sup> edition: subclause 2.9.2 amended (see UN document ST/SG/AC.10/36/Add.1)
	15.2	Environmentally hazardous substances	2.9.3	Environmentally hazardous substances (aquatic environment)	In UN 16 <sup>th</sup> edition: subclause 2.9.3 amended (see UN document ST/SG/AC.10/36/Add.1)

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